

**TECHNICAL REVIEW AND EVALUATION
OF APPLICATION FOR
AIR QUALITY PERMIT NO. 46886**

I. INTRODUCTION

This Class II Air Quality Permit is issued to Enterprise Products Operating, LLC., to operate a liquefied petroleum gas (LPG) storage facility near Holbrook, Arizona.

A. Company Information

Facility Name: Enterprise Products Operating, LLC.

Mailing Address: PO Box 4324
Houston, TX 77210

Facility Address: 113 County Road 7156
Holbrook, AZ 86025
Navajo County

B. Attainment Classification

The source is in an attainment area with respect to all the criteria pollutants

II. FACILITY DESCRIPTION

The primary emission sources at the facility include off gas from brine and process fugitives from the loading of railcars and tank trucks.

A. Process Description

The Adamana LPG Terminal is a storage and terminal location, which manages liquid butane, isobutane, and propane products or liquefied petroleum gas (LPG). The facility was constructed in 1973 and currently has a throughput of approximately two million barrels per year. LPG is received via rail and trucks, transferred to pressure tank ("bullet") storage and then pumped into underground salt caverns. The LPG product is displaced from the caverns by injecting brine. Brine removed from the caverns goes through a physical degasification process in which any entrained product vaporizes out of the water and is sent to the flare for destruction. After degasification, the brine is sent to holding ponds. The primary emissions sources are the degasser flare, desiccant dryer, and process fugitives from the loading of product into railcars and tank trucks.

The facility has two diesel, one gasoline, and one used oil storage tanks at the facility. The diesel and used oil storage tanks have been determined to be insignificant activities per Arizona Administrative Code (A.A.C.) R18-2-101 (57)(c)

B. Air Pollution Control Equipment

An air-assisted flare is used to burn gas from a new brine degasser at the facility.

III. EMISSIONS

The facility is classified as a Synthetic Minor Source pursuant to Arizona Administration Code (A.A.C.) R18-2-101.61. Table #1 quantifies the total controlled emissions from the entire facility.

Table 1: Facility Wide Controlled Emissions

Pollutant	Emissions
	Tons/year
VOC	19.6
CO	2.78
NO _x	1.39
PM ₁₀	9.6

Hydrocarbon analysis of the fractionated product received at the facility was conducted on July 14, 2008. Each extended analysis showed zero compounds with more than six carbon atoms (C6+) in the fractionated product.

IV. APPLICABLE REGULATIONS

Table 2 identifies the applicable regulations corresponding to every process unit and also provides verification as to why that standard applies

Table 2: Verification of Applicable Regulations

Unit	Control Device	Rule	Verification
Degasser and desiccant dryer	N/A	A.A.C R18-2-730	Standards of Performance for Unclassified Sources
Storage Tanks	Submerged filling	A.A.C. R18-2-710, 40 CFR 63, Subpart CCCCCC	Standards of Performance for Existing Storage Vessels for Petroleum Liquids; NESHP for Gasoline Dispensing Facilities
Fugitive dust	Water and other reasonable precautions	Article 6, A.A.C. R18-2-702	These are applicable to any fugitive dust source.
Spray painting operations	N/A	A.A.C. R18-2-727	This standard is applicable to any spray painting operation.
Demolition/renovation operations	N/A	A.A.C. R18-2-1101.A.8	This standard is applicable to any asbestos related demolition or renovation operations.

V. MONITORING RECORD KEEPING AND REPORTING REQUIREMENTS

A. Brine Degasser and Desiccant Dryer

1. Monitoring Requirements
 - a. The Permittee is required to monitor the presence of a flare pilot flame using a thermocouple or any other equivalent device to detect the presence of a flame.
 - b. The Permittee is required to conduct quarterly survey of visible emissions emanating from the flare when in operation using EPA Reference Method 22.
2. Recordkeeping Requirements
 - a. The Permittee is required to keep records of the name of observer, date and time of observation. The results of the observation shall be logged every five minutes. If visible emissions exceeding 5-minutes are noted during a 2-hr observation period, The Permittee shall take immediate corrective actions to reduce the visible emissions and log all such actions.
 - b. The Permittee is required to record and report the results of each performance test for VOC emissions.

B. Fugitive Dust

1. Monitoring Requirements

Opacity

The permit requires quarterly visual surveys or EPA Reference Method 9 observations of fugitive emissions by a certified Method 9 observer.
2. Recordkeeping Requirements

The Permittee is required to record the emission point being observed, date time and the results of all observations made, as well as the name of the observer who conducted the test. In the event of opacity going beyond the limit, the Permittee will keep a record of the corrective action taken to bring the opacity below the standard.

C. Gasoline Storage Tank

Recordkeeping Requirements

1. The Permittee is required to record the typical Reid vapor pressure of gasoline stored, dates of storage, dates on which the storage vessel is empty.
2. The Permittee is required to record the average monthly temperature and true vapor pressure of gasoline at such temperature if the true vapor pressure is greater than 470 mm Hg (9.1 psia) and the gasoline is stored in a storage vessel other than one equipped with a vapor recovery system or its equivalent.

D. Gasoline Dispensing Facilities

Recordkeeping Requirements

The Permittee is required to maintain a log of the monthly throughput of the gasoline storage tank.

VI. NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) REQUIREMENTS

The gasoline storage tank is subject to the NESHAP requirements under 40 CFR 63 Subpart CCCCCC. All requirements under this Subpart for storage tanks with monthly throughput less than 10,000 gallons have been included in the permit.

VII. IMPACTS TO AMBIENT AIR QUALITY

A. Introduction

As part of Enterprise Operating Products, LLC. Class II permit application, ADEQ has reviewed the air quality impact analysis (i.e. modeling analysis, SCREEN3) submitted by the company. The air quality impact analysis considers operation of the flare.

The purpose of the modeling analysis is to determine whether air quality impacts from proposed criteria pollutant emissions will cause or contribute to a violation of any air quality standard, or worsen an existing air quality problem. Applicable standards include the National Ambient Air Quality Standards (NAAQS).

B. Modeling Analysis Overview

1. NAAQS Analysis

Table 3 below show the results of the National Ambient Air Quality Standards (NAAQS) analysis performed for SO₂, NO_x and CO, to determine if Enterprise Operating Products, LLC's proposed facility would exceed the NAAQS. All pollutants are within the NAAQS.

Table 3: NAAQS Modeling Analysis Results

Pollutant	Averaging Period	Modeled Ambient Concentration (µg/m³)	NAAQS (µg/m³)
SO ₂	Annual	0.042	80
	24-Hour	0.21	365
	3-Hour	0.48	1,300
NO ₂	Annual	0.35	100
CO	8-Hour	8.7	10,000
	1-Hour	6.1	40,000

VIII. LEARNING SITES POLICY

In accordance with ADEQ's Environmental Permits and Approvals Near Learning Sites Policy, the Department conducted an evaluation to determine if any nearby learning sites would be adversely impacted by the Enterprise Products Operating, LLC. - Adamana LPG Facility. Learning sites consist of all existing public schools, charter schools and private schools at the K-12 level, and all planned sites for schools approved by the Arizona School Facilities Board. The learning sites policy was established to ensure that the protection of children at learning sites is considered before a permit approval is issued by ADEQ.

There are no learning sites within two miles of the facility.

IX. INSIGNIFICANT ACTIVITIES

This table includes a listing of insignificant activities.

Tank #	Storage Tanks	Storage Volume (gallons)	Justification
7	Used Oil	1,160	Diesel Fuel, No 2- A.A.C. R18-2-101 (57)(c)
6	Diesel Tank	320	Diesel Fuel, No 2- A.A.C. R18-2-101 (57)(c)
8	Diesel Tank	1,000	Diesel Fuel, No 2- A.A.C. R18-2-101 (57)(c)

X. LIST OF ABBREVIATIONS

A.A.C.	Arizona Administrative Code
ADEQ	Arizona Department of Environmental Quality
AQD	Air Quality Division
HAP	Hazardous Air Pollutant
hr	Hour
lb	Pound
LPG	Liquefied Petroleum Gas
NO _x	Nitrogen Oxide
PM	Particulate Matter
PM ₁₀	Particulate Matter Nominally less than 10 Micrometers
PTE	Potential-to-Emit
s	Seconds
SO ₂	Sulfur Dioxide
TPY	Tons per Year
VOC	Volatile Organic Compound
yr	Year